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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,174	10/08/2003	Naoto Inaba	053848-5017	5803

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MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER
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BUCZINSKI, STEPHEN C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/680,174

Applicant(s)

INABA ET AL.

Examiner

Stephen C. Buczinski

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3. Claims 1-15 and 26-40 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Bamberger.

Bamberger teaches pulse ranging where the accumulated range readings through a field of view away from the rangefinder are viewed either sequentially (2:57-62) or all at once for the operator to select (2:38-53). Also, the quality or number of hits per target either automatically results in an output known in the art (1:62) or is selectable based on "rain" or the like in 4:63 et seq. An averaged output is ultimately displayed in 2:40. To the extent that the stack memory 43 is not described as a "table", as claimed in the present invention, it would have been obvious to have equated the operation in Bamberger to have included a table within the context of the stacked bin memory 43 which operates to give the same result as claimed.

4. Claims 16-25 are rejected under 35 U.S.C. § 103 as being unpatentable over Bamberger as applied to the claims above, and further in view of Nishino.

Nishino teaches in a pulse ranging system that uses APD detection via 12 and the use of sensitivity time control (STC) that changes threshold with changing range of the expected return via 16. To the extent that this art shares similar and alternative technologies and since Bamberger controls the gain of the receiver, it would have been obvious to have used the concept of STC APD system in the ranging of Bamberger.

5. Claim 43 is rejected under 35 U.S.C. 102(b) as being anticipated by either Burns or Endo.

Note that both Burns 4:11 and Endo 22:59 teach the use of an APD detector biased.

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6. Claims 44 and 45 are rejected under 35 U.S.C. § 103 as being unpatentable further in view of Burns or Endo.

Both Burns 4:11 and Endo 22:59 teach the use of an APD detector biased by in a ranging environment. The use of an APD reversed biased in Bamberger would have been obvious as in either reference, since the optical ranging systems of this art share similar technology that is otherwise an alternative.

7. Claims 1-45 are rejected under 35 U.S.C. § 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The present claims and disclosure appear to improperly use the term "frequency" for --recurrences-- since there is no recurring regular signal per unit time ever measured. However, what is measured is the recurrence of range hits in a stacking memory. The claims and specification should be corrected on this point.

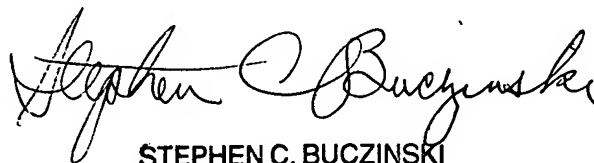
8. The specification is objected under 35 U.S.C. § 112, first paragraph as above.

9. Drawings are objected under 37 CFR 1.83 in that all box representations must include descriptive labeling.

10. Dunne '480 & '696, Hines et al, Cho et al, and Skagerlund have been cited to show related ranging techniques.

11. Any inquiry concerning this communication should be directed to Stephen C. Buczinski at telephone number (703) 305-1835. The examiner can normally be reached on Monday-Friday, 5:30 a.m.-2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached at 703 306-4171. Faxes should be sent to 703 872-9326 or 872-9327. General application status information can be obtained from the receptionist at 703 308-1113.



STEPHEN C. BUCZINSKI  
PRIMARY EXAMINER